Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-7 (Canceled)

Claim 8 (Currently Amended): A signal generator that uses an IIR type digital filter having multipliers in a feedback loop to provide an output signal, the signal generator comprising:

a control unit that provides coefficients for the multipliers during a stable oscillating state,

said control unit changes the coefficients to predetermined values during an output stopping state to stop the output signal, so that a frequency of the output signal is maintained as the output signal transitions to [[the]] being stopped [[state]].

Claim 9 (Previously Presented): The signal generator according to claim 8, wherein the predetermined values of the coefficients are provided so that poles of a transfer function of the IIR type digital filter are set to an inside of a unit circle on a Z plane.

Claim 10 (Previously Presented): The signal generator according to claim 9, wherein a ratio of a value of the poles on an imaginary axis to a value of the poles on a real axis before the coefficients are changed, and a ratio of a value of the poles on the imaginary axis to a value of the poles on the real axis after changing of the coefficients, are set to an equal value.

Claim 11 (Currently Amended): A signal generator that uses an IIR type digital filter having multipliers in a feedback loop to provide an output signal, the signal generator comprising:

a selector that selects and outputs coefficients for the multipliers during a stable oscillating state, the coefficients being selected from a plurality of set values which have been preset,

said selector changes the coefficients to predetermined values during an output stopping state to stop the output signal, so that a frequency of the output signal is maintained as the output signal transitions to [[the]] being stopped [[state]].

Claim 12 (Previously Presented): The signal generator according to claim 11, wherein the predetermined values of the coefficients are provided so that poles of a transfer function of the IIR type digital filter are set to an inside of a unit circle on a Z plane.

Claim 13 (Previously Presented): The signal generator according to claim 12, wherein a ratio of a value of the poles on an imaginary axis to a value of the poles on a real axis before the coefficients are changed, and a ratio of a value of the poles on the imaginary axis to a value of the poles on the real axis after changing of the coefficients, are set to an equal value.

Claim 14 (Currently Amended): An output stopping method of a signal generator that uses an IIR type digital filter having multipliers in a feedback loop to provide a desired signal, the method comprising:

selecting coefficients for the multipliers during a stable oscillating state to output the desired signal, the coefficients being selected from a plurality of set values which have been preset; and

changing the coefficients to predetermined values during an output stopping state to stop output of the desired signal, so that a frequency of the desired signal is maintained as the desired signal transitions to [[the]] being stopped [[state]].

Claim 15 (Previously Presented): The method according to claim 14, wherein the predetermined values of the coefficients are changed so that poles of a transfer function of the IIR type digital filter are moved to an inside of a unit circuit on a Z plane.

Claim 16 (Previously Presented): The method according to claim 15, wherein a ratio of a value of the poles on an imaginary axis to a value of the poles on a real axis before the coefficients are changed, and a ratio of a value of the poles on the imaginary axis to a value of the poles on the real axis after changing of the coefficients, are maintained at an equal value.